

## DEVELOPING LANGUAGE THROUGH THE APP ITEO

### Luxembourg

Population in  
2012: 512,353

Size: 2586 km<sup>2</sup>



Luxembourg, the second smallest state of the European Union, borders France, Belgium and Germany. The size, location, demography and economy help explain the residents' multilingualism. Luxembourg has three official languages: Luxembourgish, French and German but many more are spoken on account of the high percentage of foreign residents in the country. In February 2012, 43% of the residents were non-nationals with the Portuguese, French and Italian the largest minorities (STATEC, 2011).

### Aims of the project (pilot project for a larger study)

- To examine how the application iTEO is used in classrooms to further language learning;
- to analyze how children use iTEO when telling stories;
- to examine how the children's participation in language learning activities changes over time;
- to identify strategies children use to help each other;
- to investigate the usefulness of applying actor-network-theory in this particular context;
- to identify qualitative methodological tools suitable to the research of collective language learning in schools;
- to put the programme to the test and to develop it if and where required

### Findings

The findings illustrate, firstly, that the participation of the younger children in language activities involving iTEO improved over time. In particular it was noted that Serena, a four-year old Portuguese child, became



more eager to tell stories over the 4 months. While in March she avoided recording stories on iTEO, she was pleased to do so in June. While in March she needed peer assistance (e.g. telling her when to speak, suggesting what she say before a recording, helping her when stuck, praising her for her efforts) by June she was speaking with greater confidence, fluency and proficiency. In addition, she developed better listening skills. While at first she was apprehensive when listening to her recordings, she learned to listen with some concentration to both her own recordings and to those of her peers.

Second, we found that the use of iTEO encouraged the development of language and metalinguistic awareness. For example, Anne learned a new phrase through performing a dialogue with a classmate. The conversations between the children during the performance as well as their reflections during a follow-up interview reveal a strong sense of metalinguistic awareness.

### References

Bakhtin, M. (1981) *The Dialogic Imagination: Four Essays*. Ed. Michael Holquist, M. Austin and London: University of Texas Press.  
Fenwick, T., Edwards, R. and Sawchuk, P. (2011) *Emerging Approaches to Educational Research: Tracing the Socio-Material*. London: Routledge.  
MEN (2012) *Key figures of the Luxembourgish education system*, available on [www.men.public.lu](http://www.men.public.lu).  
STATEC (2011) *Le Luxembourg en chiffres*. Statec. Institut National de la Statistique et des études économiques, Luxembourg: Imprimerie Centrale.

### The education system

Compulsory education comprises 2 years of nursery and 6 years of primary school.

The teaching of languages is given priority and accounts for nearly 50% of the curriculum time at primary school. Luxembourgish is the language of instruction in nursery school. Children become literate in German in Year 1. They are introduced to oral French in Year 2 and become literate in French from Year 3. German is the language of instruction of most subjects while Luxembourgish is taught as a subject for one hour a week.

Languages act as a barrier to educational success. While the vast majority of the Luxembourgish children attend *secondary school* (e.g. grammar school) the children of ethnic-minority origin are over-represented in the *secondary technical schools* (MEN 2012).

|               | % of students in    |                  |                            |
|---------------|---------------------|------------------|----------------------------|
| Nationality   | secondary education | secondary school | secondary technical school |
| Luxembourgish | 65.3                | 81.3             | 57.3                       |
| Portuguese    | 20.1                | 6.8              | 26.7                       |

### Methodology

The study is carried out in a school in South-East Luxembourg close to the French and German borders.

The participants comprise 4- and 5-year-old ethnic minority pupils learning Luxembourgish, 7-year old pupils learning French, and their class teachers.

Data were collected over four months and comprised the video-recording of children's storytelling activities on iTEO, interviews with children and teachers, and the children's oral texts produced on iTEO.

All videos, oral texts and interviews were transcribed. The analysis of the video recordings comprised the search for common themes relating to learning and teaching strategies, the children's oral participation and their ways of operating the iTEO. The analysis of the stories recorded on iTEO enabled us to further examine the precision with which children used the oral text editor. The analysis of the children's language use during the storytelling events over time helped us to identify any progress made.

### iTEO and storytelling

In spite of the high language demands there is currently very little research on language learning in the classroom. There is, by contrast, a wealth of quantitative studies documenting the educational failure rates of ethnic minority children. This project investigates language learning through the app iTEO.

Storying is a valuable tool for the 'interanimation of languages' (Bakhtin, 1981, 51) in Luxembourg's school and societal context. It binds technological features, social interests and human activities. The iTEO app enables participants to build on their unique language resources when constructing oral texts. Pupils can discuss contents and processes in one language while finalising and recording utterances in a second language.

Actor-Network-Theory (ANT) is preferred over activity theory (AT) for analysing the part played by the iTEO tool in the language production process. ANT regards agency and intentionality as symmetrically distributed among human and nonhuman actors in the iTEO team. Agency is 'enacted in the emergence and interactions – as well as the exclusions – occurring in the smallest encounters' (Fenwick, Edwards and Sawchuk, 2011, 6, 13, 17).

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